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ABSTRACT

The effects of attitudes on social memory have not been determined. Some studies have shown attitudes to serve as a heuristic for estimating an answer about past behavior. When an attitude heuristic is applied to recall of an event, "memory" will appear to be "superior," to the extent that the subject's inferences and constructions coincide with what actually happened. This study examined whether attitudes can lead to a selective identification of the facts of ambiguous, past events. College students (N=60) completed a Mass Medias Survey and a knowledge test consisting of 16 pairs of statements about famous personalities. For each pair of statements, subjects indicated which statement they believed to be true, rated their confidence in this judgment, gave their attitudes toward each of the 16 personalities, and rated each true statement on a desirability scale. The results demonstrated how the use of an attitude heuristic can produce selective construction of facts. Given favorable or unfavorable facts about liked or disliked personalities, subjects demonstrated a tendency to identify as true those events that were most consistent with their attitudes toward the personality. This resulted in a selective effect of attitude on memory. (Author/NB)

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The Attitude Heuristic and Selective Fact Identification

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-- Abstract --

Social memory is often reconstructive, The present study demonstrates that attitudes can selectively influence fact identification. Given favorable (or unfavorable) facts about liked (or disliked) personalities, subjects tended to identify as true those events that agreed with their attitudes about the personality.

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The Attitude Heuristic and Selective Fact Identification

A puzzle exists in the literature concerning the effects of attitudes on social memory. In the early 1940s, a number of studies obtained an attitude and selective learning effect -- subjects demonstrated superior memory for information that agreed with their attitudes. For example, Edwards reported at MPA in 1939 (and later published in 1941) a study in which pro-, neutral, or anti-New Deal subjects read an ambigious message containing an equal number of favorable and unfavorable arguments about the New Deal. On a recognition test, subjects correctly identified a higher percentage of statements that agreed with their New Deal attitude.

Much additional research, however, has been unable to obtain attitude and selective memory effects. For example, in three separate studies, Waly and Cook (1966) found no evidence that attitudes towards segregation affected the recall of related arguments. Null results were also obtained by Greenwald and Sakumara (1967) who used statements on the Vietnam war, and Pratkanis (1984) who used statements on three different issues and employed both free recall and recognition tasks.

Compounding this puzzle are some recent findings showing that attitudes do influence memory of personal behavior. For example, in a study by Ross, McFarland and Fletcher (1981), subjects received persuasive messages that either derogated or promoted the practices of daily toothbrushing and frequent bathing. The results showed that those who heard the anti-toothbrushing and anti-bathing messages estimated that they toothbrushed and bathed less often than those who heard the pro messages. Similarly, Bem and McConnell (1970) found that subjects whose attitudes had been changed via a counterattitudinal essay task recalled their pre-essay attitudes as being consistent with their current position.

The Ross et al. and the Bem and McConnell studies demonstrates one way that attitudes can influence memory. In both studies, memory was primarily an inference about the past as opposed to a direct retrieval from episodic memory. In other words, the recall of the frequency of past behavior or a scale value representing a previously held opinion is an estimate or guess about an ambiguous event. In contrast, most studies investigating attitudes and memory for a persuasive communication involve the direct retrieval of information from episodic memory.

Further, in the Ross et al. and Bem and McConnell studies, one's own current attitude represented a readily-accessible inference strategy. That is, attitudes serve as a heuristic for estimating an answer about past behavior. A <u>heuristic</u> is a simple strategy (such as representativeness) for solving a problem. An <u>attitudinal heuristic</u> is one that uses the evaluative relationship that an individual maintains with an object to assign an object to a favorable category (for which strategies of favoring, approaching, and protecting are appropriate) or to an unfavorable category (for which strategies of disfavoring, avoiding, and harming are appropriate).

In a manner consistent with balance theory, attitudes can be used to infer past behavior, opinions, and social fact. For example, consider a person who holds a negative opinion of Martin Luther King and who believes that flunking out of college is undesirable. The individual is asked, "Did King drop out of college?" According to balance theory, a stable relationship would be obtained by replacing the question mark with a positive sign -- "Yes, King was a college drop out." Conversely, an individual who holds Dr. King in high esteem would replace the question mark with a negative sign.

When the attitude heuristic is applied to recall of an event, "memory" will appear to be "superior," to the extent that the subject's inferences and constructions coincide with what actually happened. Otherwise, it will appear biased and incorrect. The purpose of today's study is to demonstrate that attitudes can lead to a selective indentification of the facts of ambiguous, past events.

Method

Sixty subjects enrolled in an introductory psychology course participated for credit. Upon reporting to a large classroom, subjects independently completed a "Mass Media Survey." This survey consisted of five parts given in the order presented on the overhead. First, subjects received an overview of the task and informed consent materials.

This was followed by a knowledge test consisting of 16 pairs of statements about famous personalities. The subjects' tasks for each pair of statements was (1) to indicate which statement they believed to be true and (2) to rate their confidence in this judgment on a 1 to 5 scale (with 1 = not very sure and 5 = very sure). Example statements pairs include (B is the correct answer for both statements):

a. Ronald Reagan maintained an 'A' average at Eureka College.
b. Ronald Reagan never achieved above a 'C' average at Eureka College.

a. Andrew Young (former U.N. ambassador and civil rights leader) denounced Iran's Ayatollah Khomeini as a fraud.
b. Andrew Young once stated that one day Iran's Ayatollah Khomeini would be considered a saint.

Personalities were selected so that both conservatives (i.e. Ronald Reagan, James Rhodes, and Henry Kissinger) and liberals (i.e. Jerry Brown, Gloria Steinem, and George McGovern) were equally represented. For each personality, a true fact, either favorable or unfavorable, was obtained from news sources. (True favorable and unfavorable statements were divided equally among liberal and conservative personalities). A negation was created to serve as a foil for each fact. The statements in each pair were similar except for the evaluative difference, thus reducing the use of strategies other than attitude-based ones in selecting a correct item.

In the next task, attitudes towards each of the 16 personalities were assessed on a 5-point favorability scale (with 1 = very unfavorable and 5 = very favorable). (For half of the subjects, the attitude assessment preceded the knowledge test).

In the fourth experimental task, subjects rated each true statement on a 5-point scale (with 1 = very undesirable and 5 = very desirable). The desirability rating served as a manipulation check and indicated that subjects perceived the true statements as differing in desirability in the expected manner (M = 1.59 for unfavorable statements and M = 3.84 for favorable statements; $t(59) = 32.70$, $p < .01$).

The final page of the booklet contained debriefing materials.

Results

Fact identification data. The next overhead presents the percentage of correctly identified facts in the forced-choice identification task. The data are classified by attitude level (combined across personalities) and whether the unfavorable or favorable statement was true. As can be seen, attitudes selectively influenced identification of the facts. Subjects who held a positive attitude towards the personality correctly recognized a higher percentage of favorable statements as true than did subjects with a more negative attitude. The reverse pattern was obtained for the unfavorable statements. A hierarchical multiple regression confirmed this pattern of results.[1] Neither the main effects for favorability of the true statement ($F(1,59) = .30$), nor for attitude towards the personality ($F(1,59) = 2.69$) were significant. However the interaction was highly significant ($F(1,59) = 42.49$, $p < .01$) indicating a selective influence of attitude on "memory."

Confidence rating. The confidence rating also varied as a function of attitude towards the personality. Subjects were most confident in their memory judgments when their attitude towards the personality was extreme (that is, they gave a 1 or a 5 attitude rating as opposed to a mid-range response). A test for the quadratic trend,[2] confirmed the U-shaped relationship between attitude and memory confidence ($t(59) = 7.05$, $p < .01$).

Subjects were also more likely to identify a fact correctly when they were more confident in their judgment (percentage of correctly identified facts for each level of the confidence rating 1 - 5, respectively: 57.9, 62.6, 63.9, 78.0, and 90.4; $t(59) = 7.43$, $p < .01$). Although the confidence rating did predict identification accuracy, it did not influence nor moderate the relationship between attitudes and fact identification as indicated by a series of regression analyses.

Discussion

This experiment demonstrates how the use of an attitude heuristic can produce selective construction of facts. Given favorable (or unfavorable) facts about liked (or disliked) personalities, subjects demonstrated a tendency to identify as true those events that were most consistent with their attitudes towards the personality. This resulted in a selective effect of attitude on "memory" -- superior identification of facts when their veracity happened to agree with one's attitude.

As with many other single studies, alternative explanations are available. A plausible (but complimentary) alternative to the attitude-guided retrieval interpretation is one based on selective attention. Subjects may show a selectivity in memory because they previously pay more attention to news accounts that agreed with their attitude and thus recalled them better. If this were the case, subjects should have an accurate memory trace for agreeable facts and thus express it on the confident rating task. This would result in an interaction paralleling the pattern obtained with fact identification which was not obtained.

Can the present results be used to interpret past attitude and selective learning results? The Edwards study described at the beginning of this paper may have induced subjects to use their attitudes as a heuristic in the recognition task. Edwards found that attitudes influenced the interpretation of his New Deal message such that pro-New Deal subjects viewed the speech as favorable to the New Deal whereas anti-New Deal subjects perceived the reverse. Once an attitude was used to categorize the message, subjects could employ a "pro-anti" decision rule for recognizing items. That is, subjects favoring the New Deal perceived the message as favorable and thus on the recognition test selected more pro-New Deal items. Anti-New Deal subjects took the opposite reconstructive strategy. To complicate matters further, Edwards' instructions asked subjects to identify the "correct" answer. This could be interpreted as either "previously-seen in the message" or "the answer I believe in." Unfortunately, Edwards did not include distractor items and thus problems of response bias that could be potentially identified by a signal detection analysis cannot be assessed.

Of course, not all attitude and selective learning studies can be interpeted as the use of an attitude heuristic. Subjects can adopt many recall strategies and, in 15 minutes, Pratkanis, Syak & Gamble will look at another strategy involving the use of attitudinal knowledge structures.

In summary, the present study has provided more support for the notion that attitudes serve what earlier theorists called an object-appraisal or knowledge function. An attitude heuristic is an evaluative summary of past experience and knowledge about a social object. This summary can be used as an implicit theory to interpret and explain the social world. In other words, social history can be rewritten to reflect one's current attitudes and beliefs.

Footnotes

1. The correct identification of the facts and the confidence rating were used as the dependent variables in hierarchical regressions. Fact identification was scored 0 for incorrect and 1 for correct identification. Predictor variables were the subjects' attitudes toward each personality, a dummy-coded variable carrying information about whether the true statement was favorable or unfavorable and their interaction. Main effect variables were entered in the first step of the regression. In a second step, the variable carrying information about the interaction term was entered. The significance test used a pooled error term (subject variance pooled with error variance) as described in Cohen and Cohen (1975).

2. Trend tests were conducted using a regression analysis described in Cohen and Cohen (1975). In the first step of this analysis the confidence rating was predicted by the attitude score to test for a linear trend. The second step added the square of the attitude score to test for the quadratic component.

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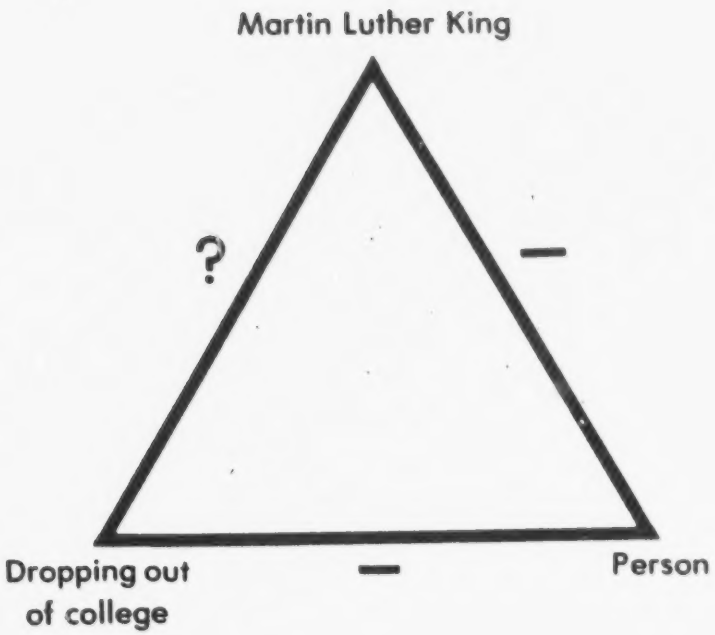


Overhead #1

PROCEDURES

1. Introduction to the experiment

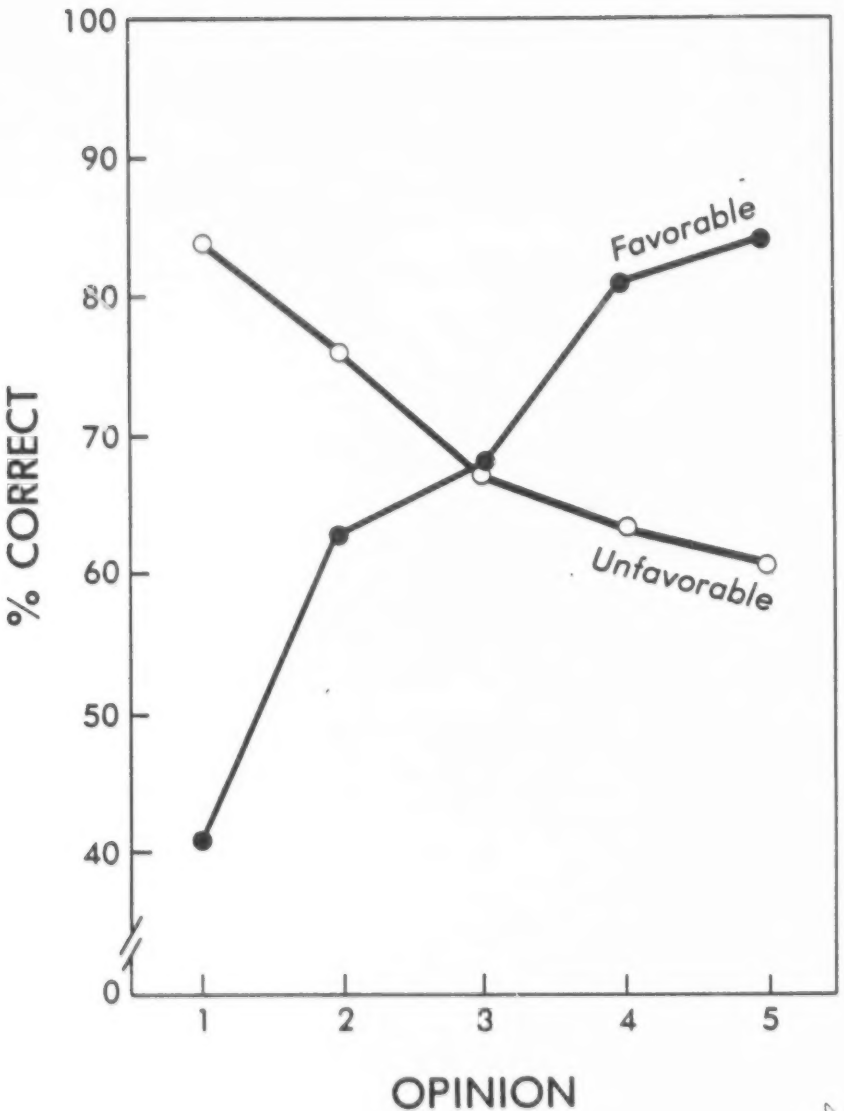
2. Knowledge test

3. Attitude assessment

4. Manipulation check

5. Debriefing information

Overhead #2


100
90
80
70
60
50
40
0
% CORRECT
Favorable
Unfavorable
1
2
3
4
5
OPINION

Overhead #3